

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A61K38/16 A61K39/10 A61P37/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, MEDLINE, COMPENDEX, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|--|--|
| X | <p>EP 0 471 177 A (AMERICAN CYANAMID CO) 19 February 1992 (1992-02-19)</p> <p>page 2, line 46 – page 3, line 4</p> <p>-----</p> <p style="text-align: center;">-/--</p> | <p>1-8, 14-31, 33, 36-39, 41,43, 50-53, 60-67, 73-79, 86-103, 108,109</p> |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

10 January 2005

Date of mailing of the International search report

21/01/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|---|---|
| X | EP 0 267 998 A (PASTEUR INSTITUT) 25 May 1988 (1988-05-25) | 1, 3, 4, 6, 14-25, 27-31, 36, 37, 50, 51, 53, 62-64, 68, 73, 75, 76, 78, 86, 87, 90-103, 108, 109 |
| | column 6 - column 8; claim 1 ----- | |
| X | WO 01/93906 A (LOCHT CAMILLE ; MENOZZI FRANCO (BE); INST NAT SANTE RECH MED (FR); RIV) 13 December 2001 (2001-12-13) | 1, 3-8, 14-25, 27-31, 36-38, 43, 50-53, 62-67, 69-73, 75-78, 86, 87, 90-103, 108, 109 |
| | page 6, line 26 - page 7, line 28; claims 1, 2, 7, 9; examples 1, 2 ----- | |
| X | EP 0 336 736 A (CONNAUGHT LAB) 11 October 1989 (1989-10-11) | 1, 3-8, 14-25, 27-31, 36-38, 43, 50, 51, 54-59, 62-64, 68-73 |
| | page 4, line 22 - line 53; example 3 ----- | |
| X | MCGUIRK PETER ET AL: "Filamentous hemagglutinin and pertussis toxin from Bordetella pertussis modulate immune responses to unrelated antigens" JOURNAL OF INFECTIOUS DISEASES, vol. 182, no. 4, October 2000 (2000-10), pages 1286-1288, XP009042214 ISSN: 0022-1899 | 1, 3-8, 14-25, 27-31, 36-38, 43, 50-53, 62-67, 69-73, 75-78, 86, 87, 90-103, 108, 109 |
| | page 1287 ----- | |
| | | -/- |

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| X | POULAIN-GODEFROY O ET AL: "ADJUVANT EFFECT OF BORDETELLA PERTUSSIS FILAMENTOUS HEMAGGLUTININ IN ASSOCIATION WITH LIPOSOMES FOR VACCINE INTRANASAL DELIVERY" IMMUNOLOGY LETTERS, AMSTERDAM, NL, vol. 69, no. 1, 1999, pages 59-60, XP000982125 ISSN: 0165-2478 abstract ----- | 1, 3-8, 14-25, 27-31, 36-38, 43, 50-53, 62-67, 69-73, 75-78, 86, 87, 90-103, 108, 109 |
| Y | MCGUIRK PETER ET AL: "Direct anti-inflammatory effect of a bacterial virulence factor: IL-10-dependent suppression of IL-12 production by filamentous hemagglutinin from Bordetella pertussis" EUROPEAN JOURNAL OF IMMUNOLOGY, vol. 30, no. 2, February 2000 (2000-02), pages 415-422, XP002312759 ISSN: 0014-2980 page 418; figures 2, 3 ----- | 1-109 |
| Y | HARRISON L C ET AL: "Antigen-specific therapy for autoimmune disease" CURRENT OPINION IN IMMUNOLOGY, CURRENT BIOLOGY LTD, XX, vol. 12, no. 6, 1 December 2000 (2000-12-01), pages 704-711, XP004257746 ISSN: 0952-7915 page 706; figure 1 ----- | 1-109 |

INTERNATIONAL SEARCH REPORT

national application No.
PCT/IE2004/000139

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1–37 and 73–109 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the composition.
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

E2004/000139

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date |
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